American Bird Conservancy's concerns regarding the continued registration of Brodifacoum (Comments)

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Please respond to
Gerald Winegrad

To: Margie Fehrenbach/DC/USEPA/US@EPA
cc:
Subject: Brodifacoum

Dear Margie: Here's the American Bird Conservancy's position on brodifacoum.

Brodifacoum

Brodifacoum is extremely dangerous to birds through secondary exposure, especially raptors feeding on poisoned rats and mice. Of the 9 rodenticides being assesed by the Rodenticide Registrants Task Force, there have been about 250 incidents reported to EPA from use of these rodenticides, of which 184 involve brodifacoum. Thirty-eight Red-tailed Hawks, 26 Great-horned Owls, 13 Golden Eagles, 5 Barn Owls, 4 Eastern Screech Owls, Red-shouldered Hawks, Cooper Hawks, Sharp-shinned Hawks, Common Ravens, and American Crows have all been killed from brodifacoum use. Mammals killed include San Joaquin Kit Foxes, coyotes, red foxes, gray foxes, mountain lion, bobcats, white-tailed deer, and many species of small mammals. Brodifacoum incidents recorded in the EIIS database for the 5-year period of 1994-98 were surpassed in number only by diazinon. Brodifacoum accounted for 67% of all wildlife losses involving pesticides in California in 1997.

Raptor species are particularly vulnerable as raptors maintain hunting territories that may include areas near agricultural or other industrial and urban buildings where rodent control is ongoing. Rodents living in and around these structures may be consumed by local avian predators. Most mortality undoubtedly goes undiscovered. For these reasons, the true impact on birds of many pesticides, including brodifacoum, is obscured.

The Rodenticide Registrants Task Force is comprised of the rodenticide companies, several of which market brodifacoum. This group has delayed EPA progress on the use of brodifacoum. **We urge you to act in a timely fashion to make brodifacoum a restricted use pesticide and to limit all outdoor use of brodifacoum to only cases of listed species and island eradications of rats and mice to protect migratory birds under strict IPM regimes.**

ABC is and has long been opposed to the use of brodifacoum by the public and in most outdoor pest control situations where the bait cannot be controlled. ABC feels strongly that brodifacoum should be a restricted use pesticide and should not be available to non-licensed applicators. Outdoor uses of any kind, even as a restricted use pesticide, should be limited to situations that may arise in which the use of brodifacoum can be critical to protecting federally listed species and/or other migratory bird species, e.g., in island situations to protect birds imperiled by rodent predation.

ABC supports such restricted use as in the recent case of brodifacoum use by the National Park Service on one of the three Anacapa Island islets to rid the islet of introduced black rats that were preying on Xantus's Murrelets, their chicks and their eggs. As at Anacapa, ABC is willing to work with the NPS, U.S. Fish and Wildlife Service and the EPA to preserve the option of such uses when integrated pest management strategies are in place and careful monitoring accompanies use, such as at Anacapa Island. The NPS completed an EIS on its plans to use brodifacoum and it was used at one-half its permitted dosage. Further, the NPS trapped endemic deer mice and raptors before the use of brodifacoum. Carcasses of black rats were also collected and raptors and other birds were hazed away from the bait. The bordifacoum used was in a granular pellet form to assure breakdown in 7 days. All of these measures were take because of brodifacoum's acute toxicity to non-target avian and mammal species.

Given the acute toxicity of brodifacoum to non-target species and the care taken by the NPS, it makes no sense to allow people to buy unlimited quantities of brodifacoum at any neighborhood hardware or garden shop as D-Con and then place the brodifacoum in paraffinized pellets out around their property. Brodifacoum at twice the dosage used at Anacapa then becomes available for longer periods of time and is extremely dangerous to birds through secondary exposure, especially raptors feeding on poisoned rats and mice, and to other mammals. Pest control companies, farmers, all landowners, and all members of the public can use unlimited quantities as well with no training.

Brodifacoum is sold under the trade names D-Con, Talon, and Havoc. It is a commonly used rodenticide and accounts for 30% of all U.S. rodenticide active ingredients. The EPA has been aware for years of the repeated secondary killing of avian and other wildlife across the U.S. It has an Avian LD50: Mallard 0.26 mg/kg .

Brodifacoum works by preventing the normal clotting of blood, leading to fatal hemorrhage. It was first registered in 1979. Currently, it is registered for the control of rats and mice in and around farm structures, households, and domestic dwellings, inside transport vehicles, commercial transportation facilities, industrial areas, sewage systems, aircraft, ships, boats, railway cars, and food processing, handling and storage areas. Application may be made as often as necessary. Brodifacoum is formulated as meal bait, paraffinized pellets, rat and

mouse bait ready-to-use place packs, and paraffin blocks. All end-use products contain 0.005 percent active ingredient.

The greatest hazard posed to wildlife by brodifacoum is that of secondary poisoning. It is highly effective at small doses - usually, a fatal dose will be ingested after a single feeding on baits. Brodifacoum is absorbed through the gut and death usually occurs through gastric hemorrhage. However, rodents do not die immediately. Most die within 4-5 days of consuming a lethal dose. Until the time of death, target pests continue to consume poisoned bait so that the amount of active ingredient present in one rodent can be many more times the amount required to kill it. Wildlife may consume rodents that have consumed large doses of brodifacoum. Death is likely to result from the consumption of only one poisoned rodent, or a predator may accumulate enough brodifacoum after consuming several poisoned prey items to induce life-threatening or fatal effects. The clotting factors affected by a single dose of brodifacoum may remain depressed at sub-normal levels for months in some animals, including birds. Stress or slight wounds incurred in the field, for example, small scratches that normally occur when a raptorial bird captures its prey, are oftentimes sufficient to cause a fatal hemorrhage.

Field studies examining the effect of brodifacoum on wildlife and birds demonstrate that mortality of non-target wildlife will occur when they have access to domestic and agricultural rodents poisoned by brodifacoum. A field trial in 1988 (Hegdal and Colvin), described the secondary exposure effects of brodifacoum on non-target wildlife. Thirty-two eastern screech owls were radio-tracked after the application of 0.001% active ingredient (one-fifth the concentration used today) bait to orchards for vole control during the Fall and Winter of 1981 — 1982. A minimum documented mortality of 58% was observed for owls having more than 20% of their home range in treated orchards. One long-eared owl was found dead on the study plots; brodifacoum was confirmed as the cause of death. Residues were found in three of four dark-eyed juncos and one of three cottontail rabbits collected. In 1983, ICI Americas, Inc. reported mortality of screech owls and other animals collected during field trials with 0.005% active ingredient bait in orchards. Residue was detected in the liver of ten of twenty owls (nineteen screech owls, one long-eared owl) examined.

Numerous cases of brodifacoum poisoning of wildlife have been reported, even after use in agricultural fields away from structures had been eliminated.

Brodifacoum is persistent in soils with a half-life of 157 days. Brodifacoum is retained in the tissues at high rates, sometimes remaining in organ systems during the entire lifetime of an exposed animal. In a study that measured the retention of radioactive brodifacoum in the livers of single-dosed rats, 34% of the single dose is found in the liver after 13 weeks, and 11% of the dose remained in the liver for 104 weeks, approaching the normal lifespan of a rat (U.S. EPA MRID 42007502). It is acutely toxic to mammals and birds. Most risks posed to wildlife are through

secondary exposure by consuming poisoned rodents. The cited general LD50 for birds is 0.26 mg/kg (U.S. EPA 1998 Reregistration Eligibility Document for Rodenticides).

We have a detailed list of brodifacoum secondary poisonings that is attached. It is from the EPA. We also have details on confirmed brodifacoum cases as reported by the Wildlife Pathology Unit of the New York State Division of Fish, Wildlife, and Marine Resources. I would be glad to share these with you at your request.

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VISIT OUR WEB SITE AT <http://www.abcbirds.org>

BrodifacoumIncidents.wpc